

## REMARKS

### *Claim Rejections - 35 USC § 103*

Claims 1-4, 7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,967,437 to Samuel in view of U.S. Patent No. 6,211,613 to May. The Examiner states Samuel discloses in Figures 2 and 3, an organic Light emitting display, comprising: a substrate (silica substrate), a plurality of OLEDs (see Figure 3) formed on the substrate (1), the OLEDs emitting polarized light wherein the OLEDs comprise: a layer (photoresist) defining a periodic grating structure (see column 9, lines 25-28), a first electrode layer (Au layer and PEDOT layer) conforming to the grating structure, an OLED material layer (MEH-PPV, wherein suitable small organic molecules can be used, see column 1, lines 60-63) formed over the first electrode layer (Au layer and PEDOT layer) and conforming to the grating structure, and a second electrode layer (calcium electrode and aluminum electrode) formed over the OLED material layer and conforming to the grating structure, wherein the first (Au layer and PEDOT layer) and/or second electrode (calcium electrode and aluminum electrode) are metallic layers, whereby the periodic grating structure induces surface plasmon cross coupling in the metallic electrode layer (see column 2, lines 55-62) to emit polarized light. The Examiner further states that Samuel discloses the use of polarizer in Figure 7, however, is silent regarding the OLED further comprising a polarizer, wherein the polarizer is oriented such that the emitted polarized light passes through the polarizer without being substantially absorbed. Finally, the Examiner states May, in the same field of endeavor, discloses an EL device comprising a circular polarizer oriented such that the emitted polarized light passes through the polarizer without being substantially absorbed, and teaches the suitability of said polarizer for improving the contrast of the display, by absorbing light from the environment (see at least Col. 1, lines 55-58), and that it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a polarizer of May for the organic light emitting diode of Samuel, in order to increase the contrast of the image. This rejection is respectfully traversed.

Contrary to the Examiner's statements, while column 2, lines 55-62 of Samuel notes that surface plasmon polarization modes associated with metal

contacts is one of the available modes of emitted energy in an LED structure (along with radiative modes and trapped guided modes), and Samuel does disclose a periodic grating structure, Samuel does not teach that the periodic grating structure is configured to induce surface plasmon cross coupling in the metallic electrode layer to emit polarized light. Samuel appears to teach configuring the microstructure grating to Bragg scatter guided modes produced by emission from the emitters in the structure (see, e.g., col. 3, line 59 – col. 5, line 14). To the extent polarized light emission is noted in Samuel, it is attributed to the Bragg scattering process (col. 4, lines 6-15).

Additionally contrary to the Examiner's statements, while the polarizer of May is employed for improving the contrast of the display, by absorbing light from the environment, there is no teaching in May of emitted polarized light, and accordingly no support for the Examiner's statement that May discloses an EL device comprising a circular polarizer oriented such that the emitted polarized light passes through the polarizer without being substantially absorbed. The proposed motivation of providing a polarizer in order to increase the contrast of the image by absorbing ambient light as taught by May would not teach or suggest to orientate such a polarizer specifically such that emitted polarized light passes through the polarizer without being substantially absorbed, as May does not teach or suggest that the ability to increase the contrast by absorbing ambient light is dependent upon the relative orientation of the polarizer and the device. It is this unique combination as claimed which provides the combined advantages of the present invention (substantial absorption of ambient light, without substantial absorption of emitted polarized light), and which distinguished the invention from the prior art. Accordingly, the present invention is not taught or suggested by the proposed combination, and a prima facie case of obviousness has not been established. Reconsideration of this rejection is accordingly respectfully requested.

Claims 5, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,967,437 to Samuel in view of U.S. Patent No. 6,211,613 to May in further view of U.S. Patent No. 6,815,886 to Kawase. The Examiner states that while the combination of Samuel-May does not disclose the OLED material layer including portions for emitting different colors and the

period of the grating structure being different for the different colors, Kawase teaches in Figures 3 and 4, an organic light emitting diode display comprising: portions for emitting different colors and the period of the grating structure being different for the different colors (see Col. 10, lines 34-38) for the purpose of enhancing the respective color wavelength and providing multi-color outputs, and that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilize the polarizer of May and the multi-color output of Kawase for the organic light emitting diode display of Samuel in order to enhance the respective color wavelength and provide multi-color outputs.

This rejection is respectfully traversed, and reconsideration is respectfully requested, as Kawase fails to overcome the basic deficiency of the rejection based on Samuel-May as discussed above. As explained in Applicants' previous response, while Kawase describes light emitting devices comprising periodic grating structures in the form of a corrugated surface, as discussed at col. 5, lines 7+ thereof the basic function of such corrugated surface is to couple light in a waveguide propagation mode with light in a radiative mode so as to cause much of the generated light conventionally trapped in waveguide modes to be emitted from the device in the radiative mode. As further discussed at col. 5, lines 25+, refractive indices and thickness of active layers are selected to achieve the desired optical coupling. This optical waveguide coupling technique again is not a teaching to design such devices with periodic grating structure in order to induce surface plasmon cross coupling in metallic electrode layers. Accordingly, a prima facie case of obviousness has not been established.

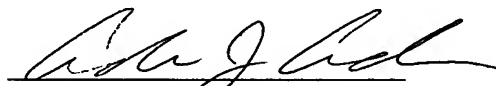
Claims 14-17 are rejected under 35 U.S.C.103 (a) as being unpatentable over U.S. Patent No. 6,967,437 to Samuel in view of U.S. Patent No. 6,211,613 to May and further in view of U.S. Patent No. 5,855,994 to Biebuyck. The Examiner states that Samuel-May discloses the claimed invention except for the limitation of a diffuser to mitigate the effect of color aberrations; Biebuyck discloses an EL device comprising a diffuser (see column 7, lines 18-35), in order to provide an organic light-emitting device having a light path for efficient emission; and that it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a diffuser with the purpose of

providing an organic light-emitting device having a light path of efficient emission.

This rejection is respectfully traversed, and reconsideration is respectfully requested, as Biebuyck et al fails to overcome the basic deficiency of the rejection based on Samuel-May as discussed above, and accordingly a prima facie case of obviousness has not been established.

In view of the foregoing remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the Examiner is earnestly solicited. Should the Examiner believe any remaining issues may be resolved via a telephone interview, the Examiner is encouraged to contact Applicants' representative at the number below to discuss such issues.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.